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APPLICATION OF HEC-6 TO EPHEMERAL RIVERS OF ARIZONA

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16. Abstract The U.S. Army Corps of Engineers, computer program HEC-6 - "Scour and Deposition in Rivers and Reservoirs" was applied to three ephemeral rivers of Arizona - Agua Fria River, Salt River, and Rillito Creek. The input data development techniques and results from these three case studies were used to develop general input data development/calibration strategies. The theoretical and numerical bases of HEC-6 were reviewed and documented to clarify and further define the important aspects of the sediment routing portion of the program. The overall result of this study is a document designed to aid "users" in the application of HEC-6 to ephemeral rivers of Arizona.			
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METRIC CONVERSION FACTORS

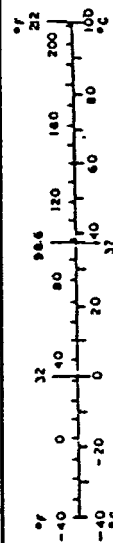
Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
sp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

* 1 in = 2.54 centimeters. For other exact conversions and more detailed tables, see NBS Atlas, Publ. 286, Units of Weights and Measures, Part 5, 25, 50 (starting on p. 111).

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
km	kilometers	1.1	miles	mi
		0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	ac
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	st
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
m ³	cubic meters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



METRIC CONVERSION FACTORS

PREFACE

The objective of this report is to present and discuss various aspects of the generalized computer program HEC-6, in order to aid in its application to rivers of Arizona. More specifically, this report includes discussion of the theoretical/numerical bases of HEC-6, input data development, supplemental programs, and case studies. The report is essentially a compilation of both available literature and insights gained from the application of HEC-6 to three rivers in Arizona.

ABSTRACT

The computer program HEC-6 - "Scour and Deposition in Rivers and Reservoirs" was applied to three ephemeral rivers of Arizona - Agua Fria River, Salt River, and Rillito Creek. The input data development techniques and results from these three case studies were used to develop general input data development/calibration strategies. The theoretical and numerical bases of HEC-6 were reviewed and documented to clarify and further define the important aspects of the sediment routing portion of the program. Hence, the overall result of this study was a document designed to aid "users" in the application of HEC-6 to ephemeral rivers of Arizona.

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